

REMARKS

Applicants hereby add new claims 67-72. Accordingly, claims 31-42 and 54-72 are pending in the present application.

Applicants note no prior art rejection has been presented with respect to claims 62 and 64. New claims 71-72 include limitations of claims 62 and 64 and the respective base claims and are allowable.

Claims 31-42 and 54-63 stand rejected under 35 USC 112, second paragraph, for indefiniteness. Claims 31-37, 39, 55, 57-60, 63, 65, and 66 stand rejected under 35 USC 102(b) for anticipation by U.S. Patent No. 4,116,523 to Coberly et al. Claims 31, 39, and 40 stand rejected under 35 USC 102(b) for anticipation by U.S. Patent No. 4,417,206 to Towers et al. Claims 31-42, 54-61, 63, and 65-66 stand rejected under 35 USC 102(e) for anticipation by U.S. Patent No. 5,323,035 to Leedy.

Applicants respectfully traverse the rejections and urge allowance of the present application.

Regarding the rejection against the claims under §112, second paragraph, the Examiner is respectfully reminded that MPEP §2173.02 (8th Edition) states the essential inquiry pertaining to a §112, second paragraph requirement is whether the claims set out and circumscribe a particular subject matter with a reasonable degree of clarity and particularity. Definiteness of claim language must be analyzed, not in a vacuum, but in light of:

- (A) the content of the particular application disclosure;
- (B) the teachings of the prior art; and

(C) the claim interpretation that would be given by one possessing the ordinary level of skill in the pertinent art at the time the invention was made.

In reviewing a claim for compliance with 35 U.S.C. §112, second paragraph, the Examiner must consider the claim as a whole to determine whether the claim apprises one of ordinary skill in the art of its scope and, therefore, serves the notice function required by 35 U.S.C. §112, second paragraph.

(citations omitted) MPEP §2173.02 (8th Edition). Applicants submit that the claims are clear and definite on their face. Moreover, one of ordinary skill in the art with the opportunity to consider and review the contents of the application disclosure pursuant to the above authority would clearly understand the language of the claims. The Examiner asks questions which simply are not relevant regarding the apex in the form of a knife-edge line as claimed. For example, the Examiner asks "it is not apparent how sharp the narrowest part of the apex would have to be to form a knife-edge line." Such question is not relevant because Applicants are not explicitly claiming sharpness of the narrowest part of the apex. Further, Applicants are not explicitly claiming an orientation of the knife-edge line residing with respect to the apex. Further still, the Examiner questions whether knife-edge line is limited to a plane or linear orientation. Such question is irrelevant inasmuch as Applicants are not explicitly claiming a planar or linear orientation in any of the claims and one of ordinary skill in the art would understand the claimed terminology of an "apex in the form of a knife-edge line" on its face, and especially in consideration of the

exemplary embodiments disclosed in the originally-filed specification and associated figures.

On page 3 of the Action, it is stated with respect to claims 62 and 64 that the claimed subject matter is allegedly not clear because "the uppermost surface of the substrate is located at substrate's uppermost point." Apart from the Office Action, *nowhere* is it defined that the uppermost surface is located at an uppermost point of the substrate. Applicants respectfully refer the Examiner to some of the exemplary embodiments shown in the figures (e.g., Figs. 8, 12, 19) of the originally-filed specification for clarification. A fundamental principle contained in 35 U.S.C. 112, second paragraph is that applicants are their own lexicographers [and] [t]hey can define in the claims what they regard as their invention essentially in whatever terms they choose. MPEP §2173:01 (8th Edition). Accordingly, the questions asked by the Examiner may operate to limit Applicant's invention contrary to the above authority. A review of the specification and Figs. clearly illustrate a sufficient descriptive disclosure of knife-edge line for one skilled in the art to understand.

Further regarding the rejection against claims under §112, second paragraph, respectfully, Applicant questions how the application could be examined with the numerous §102 rejections being presented if the claim language is not sufficiently definite pursuant to §112, second paragraph as alleged. Evidence of the fact that the claims are definite is clearly demonstrated by the apparent examination of the claims and presentation of the numerous rejections against the claims. Accordingly, knife edge line is definite, and therefore, the §112, second paragraph rejection is improper. Applicant requests

withdrawal of the §112 rejection in the next Office Action.

Claim 31 recites the apex comprising semiconductor material. The Office Action identifies structures 22, 40 as allegedly disclosing the claimed apexes. Coberly fails to disclose or suggest that references 22, 40 are semiconductor as recited in claim 31. Claim 31 recites patentable subject matter over Coberly for at least this reason:

Regarding the anticipation rejection of claim 31 based on Leedy, such reference discloses single crystal silicon used as a sacrificial substrate during processing to form insertion structures (col. 3, lines 48-60 and col. 4, lines 10-61). The sacrificial substrate is just that, sacrificial, which is used as a mold to form a desired configuration of conductive layers 20 and dielectric material 14. Once formed, the insertion structures are supported by a rigid backing substrate 40 bonded to dielectric layer 14. Leedy is devoid of disclosing or suggesting apexes comprising semiconductor material as claimed and claim 31 is allowable over Leedy.

Regarding the anticipation rejection against claim 31 based on Stowers, such reference teaches a contact probe *machined from metal* (col. 1, lines 15-25; col. 2, lines 35-40). A substrate of Stowers is identified as reference 10 on page 7 of the Action. In col. 1, lines 44-58, machining of the probe and head 10 is described to form structures 22, 22a as set forth in col. 2. The Stowers teachings regarding metal machining fail to teach or suggest an apex comprising semiconductor material as recited in claim 31. Stowers fails to teach or suggest a positively recited limitation of claim 31; and therefore, claim 31 is allowable over Stowers.

The prior art fails to teach or suggest an apex in the form of a knife-edge line and

comprising semiconductor material as claimed. Claim 31 recites patentable subject matter.

The claims which depend from independent claim 31 are in condition for allowance for the reasons discussed above with respect to the independent claim as well as for their own respective features which are neither shown nor suggested by the cited art.

Referring to claim 54, Coberty, Leedy and Stowers, taken alone or in combination, fail to disclose or suggest the claimed removable engagement probe having an outer surface comprising an apex in the form of at least one knife-edge line and comprising semiconductor material and sized and positioned to engage a single conductive pad as claimed. Claim 54 recites limitations not shown nor suggested in the art and claim 54 is allowable for at least this reason:

The claims which depend from independent claim 54 are in condition for allowance for the reasons discussed above with respect to the independent claim as well as for their own respective features which are neither shown nor suggested by the cited art.

Claim 66 recites an engagement probe formed on a projection from a substrate, a knife-edge line projects from a penetration stop plane on the projection, the knife-edge line having a tip and a having a base at the penetration stop plane, the tip being a distance from the penetration stop plane of about one-half the thickness of the conductive pad which the apparatus is adapted to engage.

No teachings of Coberly are identified in the Office Action as allegedly disclosing the above-recited limitations of claim 66 including the tip being a distance from the stop plane of about one-half the thickness of the conductive pad. Further, any interpretation of penetration of Coberly is directly contrary to teachings in col 3, line 50 spanning to col. 4,

line 2. Claim 66 is allowable over Coberly.

Referring to the rejection of claim 66 over Leedy, the Office Action relies upon teachings in col. 3, line 10-17 as allegedly disclosing the tip being a distance from the penetration stop plane of about one-half the thickness of the conductive pad which the apparatus is adapted to engage. Such teachings merely state that *variations in the extending lengths of a plurality of insertion structures should be less than 50-75%*. Such fails to disclose or suggest any distance of the tip from a penetration stop plane as claimed. Leedy fails to disclose or suggest limitations of claim 66.

Claim 66 is allowable over the prior art for at least these reasons.

Support for new claims 67-71 is provided at least on page 7, lines 5-20 and associated Figs. 1-8 of the originally-filed specification.

Applicants respectfully request allowance of all pending claims.

The Examiner is requested to phone the undersigned if the Examiner believes such would facilitate prosecution of the present application. The undersigned is available for telephone consultation at any time during normal business hours (Pacific Time Zone).

Respectfully submitted,

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By: 

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